Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

What is claimed is:

1. (Currently Amended) A vehicle navigation system comprising:

a processor ~~operable~~ configured to store [[an]] a high occupancy vehicle (HOV) restriction value for a section of road and ~~operable~~ configured to receive information ~~regarding~~ from a plurality of seat occupancy sensors each configured to determine whether a respective seat is occupied, where the information is indicative of a number of ~~occupants~~ occupied seats in the vehicle;

where the processor is configured to receive an input from a user indicative of the number of occupants in the vehicle;

where the processor is configured to compare the information from the plurality of seat sensors to the input from the user;

where the processor is configured to prompt the user to verify the input from the user in response to the comparison of the information from the plurality of seat sensors to the input from the user being indicative of the number of occupants being different from the number of occupied seats;

where the processor is configured to receive the verification of the input from the user;

where the processor is configured to compare the ~~number of occupants in the vehicle~~ verified input to the HOV restriction value of the section of road; and

where the processor ~~determines~~ is configured to determine a route as a function of the comparison of the ~~number of occupants in the vehicls~~ verified input to the HOV restriction value of the section of road.

2. (Cancelled)

3. (Currently Amended) The vehicle navigation system of claim [[2]] 1 where the each of the plurality of seat occupancy sensor provides the signal sensors is configured to generate a respective signal indicative of whether a respective seat is occupied, and where each of the seat occupancy sensors is configured to provide the respective signal to the processor.

4. (Cancelled)

5. (Original) The vehicle navigation system of Claim 1 where the HOV restriction value for a section of road is provided via wireless connection.

6. (Cancelled)

7. (Currently Amended) The vehicle navigation system of Claim 1 further including a display coupled to the processor, where the processor generates is configured to generate a map indicating distinguishing the existence of an HOV restriction value for a section of road from at least one section of road without an HOV restriction value and displays the map on the display.

8. (Currently Amended) The vehicle navigation system of Claim 1 further including a speaker coupled to the processor, where the processor generates is configured to generate a sound indicating the existence of an HOV restriction value for a section of road and plays the sound via the speaker.

9. (Currently Amended) The vehicle navigation system of Claim 1 further including a speaker coupled to the processor, where the processor generates is configured to generate a sound played via the speaker indicating a route recommendation based on the comparison.

10. (Currently Amended) A navigation system for a vehicle comprising:

    a plurality of seat occupancy sensor sensors, where each of the plurality of seat occupancy sensors is coupled to a respective seat in the vehicle and operable configured to

generate an occupancy signal indicating whether the <u>respective</u> seat is occupied;

a processor coupled to the <u>plurality of</u> seat occupancy ~~sensor~~ <u>sensors</u> and ~~operable~~ <u>configured</u> to store a high occupancy vehicle restriction value for a section of road; and

a display coupled to the processor, where the processor ~~generates~~ <u>is configured to generate</u> a map <u>visually</u> indicating the high occupancy vehicle restriction value for the section of road and ~~displays~~ <u>configured to display</u> the map on the display; ~~and~~

where the processor is configured to receive the occupancy ~~signal~~ <u>signals</u>, determine a number of occupants in the vehicle based on the occupancy signals, and compare the number of occupants in the vehicle to the high occupancy vehicle restriction value for the section of road<u>;</u>

<u>where the processor is configured to determine a plurality of routes from an origin to a destination, where at least one of the routes is based on the comparison of the number of occupants in the vehicle to the high occupancy vehicle restriction value for the section of road; and</u>

<u>where the processor is configured to prompt a user to select one of the plurality of routes.</u>

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended)   The navigation system of Claim 10 further including a speaker coupled to the processor, where the processor ~~generates~~ <u>is configured to generate</u> a sound indicating the high occupancy vehicle restriction value for the section of road, and plays the sound via the speaker.

14. (Currently Amended)   The navigation system of Claim 10 further including a speaker coupled to the processor, where the processor ~~generates~~ <u>is configured to generate</u> a sound played via the speaker indicating a route recommendation based on the comparison of the number of occupants to the high occupancy vehicle restriction value.

15. (Currently Amended) A method for navigating a vehicle, the method comprising:

retrieving a high occupancy vehicle restriction value for a section of road;

receiving ~~occupancy signal from a seat occupancy sensor indicating~~ occupancy information from a plurality of occupancy sensors, where each of the occupancy sensors is configured to determine whether a seat in the vehicle is occupied, and where the occupancy information is indicative of a number of occupied seats in the vehicle;

~~determining a number of occupants in the vehicle based on the occupancy signal;~~

receiving an input from a user, where the input is indicative of a number of occupants in the vehicle;

comparing the occupancy information from the plurality of occupancy sensors to the input from the user;

prompting the user to verify the input when the comparison indicates that the number of occupants is different than the number of occupied seats;

receiving verification of the input from the user; and

determining whether the vehicle is authorized to traverse the section of road based on a comparison of the high occupancy vehicle restriction value to the ~~number of occupants~~ verified input.

16. (Original) The method of Claim 15 further comprising the step of storing the high occupancy vehicle restriction value.

17. (Original) The method of Claim 15 further comprising storing a digital map that includes the high occupancy vehicle restriction value.

18. (Currently Amended) The method of Claim 15 where determining whether the vehicle is authorized includes determining whether the ~~number of occupants~~ verified input is at least equal to the high occupancy vehicle restriction value.

19. (Original) The method of Claim 15 further comprising determining a route to a destination based on the comparison.

20. (Original) The method of Claim 15 further comprising determining a route that includes the section of road where the vehicle is authorized to traverse the section of road.

21. (Original) The method of Claim 15 further comprising determining a route that excludes the section of road where the vehicle is not authorized to traverse the section of road.

22. (Original) The method of Claim 15 further comprising generating a map indicating the existence of the high occupancy vehicle restriction value for the section of road, and displaying the map on a display.

23. (Original) The method of Claim 15 further comprising generating a sound indicating the existence of the high occupancy vehicle restriction value for the section of road, and playing the sound via a speaker.

24. (Original) The method of Claim 15 further comprising generating a sound indicating the vehicle is not authorized to traverse the section of road based on the comparison, and playing the sound via a speaker.

25. (Currently Amended) A navigation system for a vehicle comprising:

    a seat occupancy sensor;

    a processor coupled to the seat occupancy sensor;

    a display coupled to the processor;

    where the processor includes a program of instructions on a computer-readable medium comprising:

        instructions to retrieve a high occupancy vehicle restriction value for a section of road;

instructions to receive an occupancy signal from the seat occupancy sensor;

instructions to determine a number of occupants in the vehicle based on the occupancy signal;

instructions to compare the high occupancy vehicle restriction value to the number of occupants;

instructions to determine whether the vehicle is authorized to traverse the section of road based on the comparison; ~~and~~

instructions to generate a map indicating the high occupancy vehicle restriction value for the section of road and to display the map on the display;

instructions to determine a plurality of routes from an origin to a destination, where at least one of the routes is a function of the comparison of the number of occupants in the vehicle to the high occupancy vehicle restriction value for the road; and

instructions to prompt a user to select one of the plurality of routes.

26.   (Original) The navigation system of Claim 25 where the processor includes a digital map that includes the existence of the high occupancy vehicle restriction value for the section of road.

27.   (Original) The navigation system of Claim 25 where the program of instructions further comprises instructions to determine at least one of the plurality of routes ~~a route~~ based on whether the vehicle is authorized to traverse the section of road.

28.   (Cancelled)

29.   (Original) The navigation system of Claim 25 further including a speaker coupled to the processor, where the program of instructions further comprises instructions to generate a sound indicating the existence of the high occupancy vehicle restriction value for the section of road, and to play the sound via a speaker

30. (Original) The navigation system of Claim 25, further including a speaker coupled to the processor, where the program of instructions further comprises instructions to generate a sound indicating the vehicle is not authorized to traverse the section of road, and to play the sound via a speaker.

31. – 35. (Cancelled)

36. (New)   A navigation system for a vehicle comprising:

a processor configured to store an high occupancy vehicle restriction value for a section of road and configured to receive information from a plurality of seat occupancy sensors each configured to determine whether a respective seat is occupied, where the information is indicative of a number of occupied seats in the vehicle;

where the processor is configured to receive a first input from a user indicative of the number of occupants in the vehicle;

where the processor is configured to compare the information from the plurality of seat sensors to the first input from the user;

where the processor is configured to prompt the user to verify the first input from the user in response to the comparison being indicative of the number of occupants being different from the number of occupied seats;

where the processor is configured to receive the verification of the first input from the user;

where the processor is configured to compare the verified first input to the high occupancy vehicle restriction value of the section of road;

where the processor is configured to determine a plurality of routes, where the processor is configured to determine at least one route of the plurality of routes to include the section of road based on the comparison of the verified first input to the high occupancy vehicle restriction value of the section of road; and

where the processor is configured to prompt the user to select one of the plurality of routes and to receive a second input from the user indicative of the selected route; and

a display coupled to the processor, where the processor is configured to generate a map to display the selected route and to visually distinguish the high occupancy vehicle restriction value of the section of road from other sections of road without a high occupancy vehicle restriction.

37. (New)   The vehicle navigation system of Claim 1, where the processor is configured to generate a plurality of routes from an origin to a destination; and

where the processor is configured to prompt the user to select one of the plurality of routes.

38. (New) The method of claim 15 further comprising:

generating a plurality of routes, where at least one of the plurality of routes is based on the comparison of the high occupancy vehicle restriction value to the verified input; and

prompting the user to select one of plurality of routes.